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**Title:** Introduction in Multiobjective optimization with Evolutionary Algorithms Rating System framework

**Abstract:**

Multiobjective optimization is one of the hot topic in different research fields, from economics, medicine to engineering. Researchers and domain experts define more and more complex models/simulations that describe systems, with more than one optimization objective, for example quality and price. In case of conflicting objectives, result is instead of single solution, set of solutions called Pareto front. The Pareto Front helps the end user in decision-making process and can contribute greatly to understand the problem.

The goals of the lecture are:

Short introduction to multiobjective optimization.

Introductory tutorial in multiobjective optimization with open source Evolutionary Algorithms Rating System framework (<https://github.com/UM-LPM/EARS>).

How to use metaheuristic multiobjective optimization algorithms.

How to implement simple multiobjective problem.

How to interpret solution.

**CV for Matej Črepinšek**

Matej Črepinšek received the Ph.D. degree in computer science at the University of Maribor, Slovenia in 2007. His research interests include evolutionary computations, grammatical inference, object-oriented programming, compilers and grammar-based systems. His research work includes more than 20 original scientific papers, with more than 1200 citations by Google scholar's metrics. He is currently an assistant professor at the University of Maribor, Faculty of Electrical Engineering and Computer Science.